

AMENDMENTS TO THE CLAIMS:

Amend the claims as follows:

1. (Currently Amended) An ink composition comprising:

water;

a colorant containing a pigment;

a nonionic surfactant, the content of the nonionic surfactant being at a critical micelle concentration or more; and

a polyester resin containing a polybasic carboxylic acid ingredient and a polyhydric alcohol ingredient,

the polybasic carboxylic acid ingredient containing three or more dicarboxylic acids which include at least ~~aromatic dicarboxylic acid having a metal sulfonate group~~ sodium 5-sulfoisophthalate and aromatic dicarboxylic acid not having a metal sulfonate group, wherein a ratio of the aromatic dicarboxylic acid having a metal sulfonate group contained in the polybasic carboxylic acid ingredient is 0.5 mol % or more and ~~[[4 mol %]]~~ 3.5 mol % or less, and

wherein the polyester resin has a number average molecular weight within a range of from 5,000 to 50,000, and the polyester resin has a glass transition point Tg within a range of from -20°C to 70°C.

Claims 2-3. (Canceled)

4. (Original) The ink composition of claim 1, wherein the polyhydric alcohol ingredient contains at least one glycol selected from the group consisting of aliphatic glycols and cycloaliphatic glycols.

5. (Original) The ink composition of claim 1, wherein electroconductivity of the water is 250 $\mu\text{S}/\text{cm}$ or less.

Claim 6. (Canceled)

7. (Previously Presented) The ink composition of claim 1, wherein the pigment has a hydrophilic group.

8. (Original) The ink composition of claim 7, wherein the hydrophilic group is at least one of carboxyl group and sulfonic group.

9. (Original) The ink composition of claim 1, wherein the ink composition further comprises a water-soluble organic solvent having a vapor pressure lower than that of the water.

10. (Original) The ink composition of claim 9, wherein the water-soluble organic solvent contains glycol ethers and/or polyhydric alcohols.

Claim 11. (Canceled)

12. (Previously Presented) The ink composition of claim 1, wherein the pigment contains at least one pigment selected from the group consisting of C.I. pigment blue 15:3 and C.I. pigment blue 15:4.

13. (Previously Presented) The ink composition of claim 1, wherein the pigment contains at least one selected from the group consisting of C.I. pigment red 122, C.I. pigment red 209 and C.I. pigment violet 19.

14. (Previously Presented) The ink composition of claim 1, wherein the pigment contains at least one selected from the group consisting of C.I. pigment yellow 74, C.I. pigment yellow 138, C.I. pigment yellow 150 and C.I. pigment yellow 180.

15. (Previously Presented) The ink composition of claim 1, wherein the pigment contains a carbon black.

16. (Previously Presented) A recording method of recording images comprising:
depositing an ink composition of claim 1 on a recording material.

17. (Original) A recording method of recording images comprising:
discharging liquid droplets of an ink composition by applying a pressure to the ink composition; and
depositing the liquid droplets on a recording material,

wherein for the ink composition is used the ink composition of claim 1.

18. (Previously Presented) A recording method of recording images comprising:
depositing at least ink compositions (i), (ii) and (iii) on a recording material,
said ink compositions (i), (ii) and (iii) each being a composition according to claim
1:

(i) wherein the colorant contains at least one pigment selected from the group
consisting of C.I. pigment blue 15:3 and C.I. pigment blue 15:4;

(ii) wherein the colorant contains at least one pigment selected from the group
consisting of C.I. pigment red 122, C.I. pigment red 209, and C.I. pigment violet 19; and

(iii) wherein the colorant contains at least one pigment selected from the group
consisting of C.I. pigment yellow 74, C.I. pigment yellow 138, C.I. pigment yellow 150
and C.I. pigment yellow 180 .

19. (Previously Presented) A recording method of recording images comprising:
discharging liquid droplets of at least ink compositions (i), (ii) and (iii) by applying
a pressure to the ink compositions; and
depositing the liquid droplets on a recording material,
said ink compositions (i), (ii) and (iii) each being a composition according to claim
1:

(i) wherein the colorant contains at least one pigment selected from the group
consisting of C.I. pigment blue 15:3, and C.I. pigment blue 15:4;

(ii) wherein the colorant contains at least one pigment selected from the group consisting of C.I. pigment red 122, C.I. pigment red 209, and C.I. pigment violet 19; and

(iii) wherein the colorant contains at least one pigment selected from the group consisting of C.I. pigment yellow 74, C.I. pigment yellow 138, C.I. pigment yellow 150 and C.I. pigment yellow 180.

20. (Previously Presented) A recording method of recording images comprising: depositing at least ink compositions (i), (ii), (iii) and (iv) on a recording material; said ink compositions (i), (ii), (iii) and (iv), each being a composition according to claim 1:

(i) wherein the colorant contains at least one pigment selected from the group consisting of C.I. pigment blue 15:3, and C.I. pigment blue 15:4;

(ii) wherein the colorant contains at least one pigment selected from the group consisting of C.I. pigment red 122, C.I. pigment red 209, and C.I. pigment violet 19;

(iii) wherein the colorant contains at least one pigment selected from the group consisting of C.I. pigment yellow 74, C.I. pigment yellow 138, C.I. pigment yellow 150, and C.I. pigment yellow 180; and

(iv) wherein the colorant contains carbon black.

21. (Previously Presented) A recording method of recording images comprising: discharging liquid droplets of at least ink compositions (i), (ii), (iii) and (iv) by applying a pressure to the ink compositions, and depositing the liquid droplets on a recording material,

said ink compositions (i), (ii), (iii) and (iv) each being a composition according to claim 1:

(i) wherein the colorant contains at least one pigment selected from the group consisting of C.I. pigment blue 15:3, and C.I. pigment blue 15:4;

(ii) wherein the colorant contains at least one pigment selected from the group consisting of C.I. pigment red 122, C.I. pigment red 209, and C.I. pigment violet 19;

(iii) wherein the colorant contains at least one pigment selected from the group consisting of C.I. pigment yellow 74, C.I. pigment yellow 138, C.I. pigment yellow 150, and C.I. pigment yellow 180; and

(iv) wherein the colorant contains a carbon black.

22. (Original) A recorded image recorded by the recording method of claim 16.

23. (Original) A recorded image recorded by the recording method of claim 17.

24. (Previously Presented) An ink set comprising the following ink compositions (i), (ii) and (iii), each being a composition according to claim 1:

(i) wherein the colorant contains at least one pigment selected from the group consisting of C.I. pigment blue 15:3 and C.I. pigment blue 15:4,

(ii) wherein the colorant contains at least one pigment selected from the group consisting of C.I. pigment red 122, C.I. pigment red 209 and C.I. pigment violet 19, and

(iii) wherein the colorant contains at least one pigment selected from the group consisting of C.I. pigment yellow 74, C.I. pigment yellow 138, C.I. pigment yellow 150 and C.I. pigment yellow 180.

25. (Previously Presented) An ink set comprising the following ink compositions (i), (ii), (iii) and (iv), each being a composition according to claim 1:

(i) wherein the colorant contains at least one pigment selected from the group consisting of C.I. pigment blue 15:3 and C.I. pigment blue 15:4,

(ii) wherein the colorant contains at least one pigment selected from the group consisting of C.I. pigment red 122, C.I. pigment red 209 and C.I. pigment violet 19,

(iii) wherein the colorant contains at least one pigment selected from the group consisting of C.I. pigment yellow 74, C.I. pigment yellow 138, C.I. pigment yellow 150 and C.I. pigment yellow 180, and

(iv) wherein the colorant contains a carbon black.

26. (Previously Presented) An ink head comprising:

an ink tank storing the ink composition of claim 1;

an ink chamber having a discharge port for discharging liquid droplets of the ink composition, the ink chamber being supplied with the ink composition from the ink tank;

a piezoelectric element disposed to at least a portion of the ink chamber, for applying a pressure to the ink composition contained in the ink chamber, the piezoelectric element generating distortion in response to a voltage applied thereto, and

an electrode for applying the voltage to the piezoelectric element.

27. (Previously Presented) An ink head comprising:

an ink tank storing the ink composition of claim 1;

an ink chamber having a discharge port for discharging liquid droplets of the ink composition, the ink chamber being supplied with the ink composition from the ink tank;

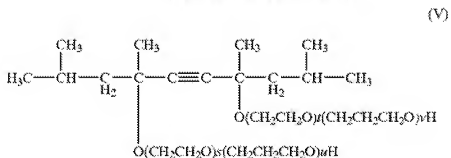
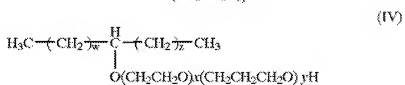
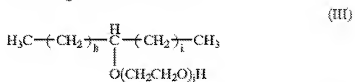
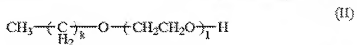
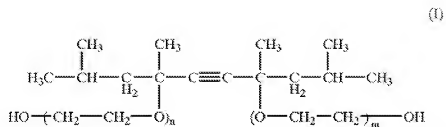
a heat generation body disposed to at least a portion of the ink chamber, for heating the ink composition contained in the ink chamber to generate air bubbles and thereby applying a pressure to the ink composition, and

an electrode for applying a voltage to the heat generation body.

28. (Original) A recorded image recorded by depositing liquid droplets of the ink composition which are discharged by the ink head of claim 26, on a recording material.

29. (Original) A recorded image recorded by depositing liquid droplets of the ink composition which are discharged by the ink head of claim 27, on a recording material.

30. (Previously Presented) The ink composition of claim 1 wherein the nonionic surfactant is a compound selected from the group consisting of (I), (II), (III), (IV) and (V),



wherein

m is an integer or decimal from 0 to 30 and n is an integer or decimal from 0 to 30, such that the sum of m and n (m+n) is an integer or decimal from 0 to 30,

k is an integer or decimal from 11 to 13, and l is an integer or decimal from 3 to 30,

h is an integer or decimal from 0 to 11, i is an integer or decimal from 0 to 11, and j is an integer or decimal from 3 to 50, such that the sum of h and i ($h+i$) is an integer or decimal from 9 to 11,

w is an integer or decimal from 0 to 11, x is an integer or decimal from 5 to 9, y is an integer or decimal from 2.5 to 5, and z is an integer or decimal from 0 to 9, such that the sum of w and z ($w+z$) is an integer or decimal from 9 to 11, and

the sum of s and t ($s+t$) is an integer or decimal from 1 to 30, and the sum of u and v ($u+v$) is an integer or decimal from 1 to 10.

31. (Previously Presented) The ink composition of claim 1, wherein the three or more dicarboxylic acids further include another aromatic dicarboxylic acid not having a metal sulfonate group, aliphatic dicarboxylic acid, or cycloaliphatic dicarboxylic acid.